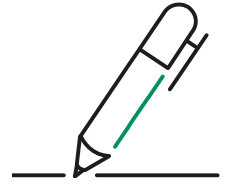


Inflation-Linked Bond Market Q2 2023 Review & Q3 2023 Outlook



Overview of major themes in the second quarter 2023

2023 has been a year of rapidly shifting economic and market narratives, and the second quarter was no exception. The reader will recall that the first quarter concluded with a regional bank crisis in the United States that led to speculation that Fed hikes had begun to 'break' the financial system, that a recession was imminent and that the Federal Open Market Committee (FOMC) might have to cut rates as soon as the third quarter. China, meanwhile, was anticipated to reaccelerate following its post-pandemic reopening and stimulus measures. The Eurozone economy was enjoying a boost from falling natural gas prices, and a robust labour market, leading to strength in Purchasing Managers' Indices (PMIs).

Now, only a few weeks later, that narrative has been stood on its head. China's reopening looks to have stalled, leaving domestic demand very weak. China's manufacturing PMIs have fallen, along with export growth. Stimulus measures have failed to reignite mortgage lending and property sales, leaving China with a large overhang of excess residential supply and debt. In short, the authorities' fiscal caution and reluctance to add to China's existing imbalances in the property sector indicate that China is growing below trend and flirting with consumer price deflation (with y/y CPI close to zero and PPI in contraction).

In Europe, growth has also disappointed. Revised GDP data reveal two quarters of negative growth starting in the fourth quarter of 2022, and renewed decline in PMIs suggest the second quarter and the remainder of 2023 will not fare much better. Industrial production has slumped and consumption has shrunk in real terms (though households should benefit from some wage catch-up in the coming months). With the European Central Bank (ECB) still on its tightening path, and the net export boost from improved terms of trade (TOT) now fading, Eurozone growth looks set to be far weaker in 2023 than the 3.5% seen in 2022.

In the US, meanwhile, the measures taken by the Federal Reserve to stabilize confidence in US regional banks after the failures of Silicon Valley Bank, Signature Bank and First Republic have been remarkably successful. A widespread bank run (and attendant credit crunch) has been prevented, but the ensuing contraction in credit remains a concern for funding of small businesses and commercial real estate. Regardless, the broader US economy has proven resilient in the first half of the year. Jobs growth has remained robust, and both residential and non-residential construction have picked up. The combination of stimulus from the CHIPS and Inflation Reduction Acts (IRA), plus enthusiasm over generative Artificial Intelligence (AI) technologies have clearly boosted investment and equity market sentiment. Growth in final sales to domestic private purchasers of 3.2% on an annualized basis in the first quarter, plus an Atlanta Fed second quarter GDP Nowcast of 2.2%, suggest that the US economy has actually reaccelerated to trend despite 500bps of Fed rate hikes. This reversal in relative growth fortunes was hard to foresee and also position for at the end of the first quarter.

On the inflation front, the common theme has been the stickiness of services inflation. Although base and energy effects have significantly lowered headline inflation rates, the stickiness of services inflation has prevented central banks from pivoting towards an easier policy stance. Indeed, Canada and Australia – two economies with highly leveraged household sectors that many assumed would be the first to complete their hiking cycles – were forced to resume hikes after attempting a pause. In the UK, core inflation worryingly gained further momentum in the second quarter. Meanwhile, in the US, Fed Chairman Powell bemoaned the lack of progress in bringing down core non-shelter services.

On the monetary policy front, with concerns over regional banks having faded, the path for US policy rates has been revised higher and the Fed has reaffirmed its hiking bias, even if it has slowed the pace of hikes. The ECB's President Lagarde, meanwhile, has stated "there is more work to do". The Bank of England (BoE) has been wrong-footed by large upside surprises



BNP PARIBAS
ASSET MANAGEMENT

The sustainable
investor for a
changing world

in inflation data, forcing them to respond with a 50bp hike. The question of where policy rates might peak therefore remains unresolved – but it is clear that all the major central banks will be taking rates higher than had been anticipated a few weeks ago.

UNITED STATES

US developments in the second quarter 2023

Growth and Inflation developments

As noted in our introduction, there were several notable US developments in the second quarter:

- (i) **Market stress over regional banks faded quickly** following the Fed's establishment of the Bank Term Funding Program (BTFP) in late March, even though the utilization of BTFP has grown over the last few weeks.

To recap, the BTFP allows banks to borrow against the face value of so-called Held-to-Maturity (HTM) assets for up to a year, permitting banks facing deposit outflows to access liquidity without having to crystallize losses on HTM assets. The BTFP successfully prevented a broader deposit run on regional banks (an outcome that we were not sure was assured, given the Treasury's inability to unilaterally guarantee all deposits without limit).

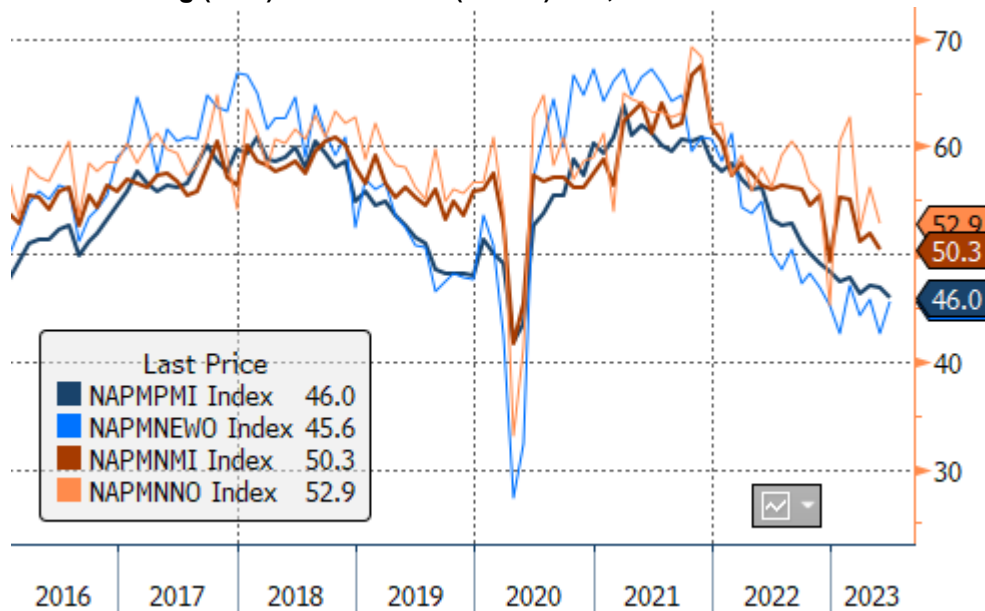
Nevertheless, while the BTFP provides a liquidity backstop for the US banking system, it does not address regional banks' other problem – an inexorable rise in the cost of funding that will hit earnings. Higher deposit rates, required to prevent outflows to money market funds or Treasury bills, will severely constrain regional bank earnings, and reduce their capacity to provide credit to small businesses and commercial real estate. This inevitable contraction in credit will be a significant headwind to economic growth and commercial real estate (CRE) asset performance, and we will need to closely monitor the quarterly Senior Loan Officer's Survey and small business surveys to observe the impact on credit conditions, and pass-through to the real economy.

- (ii) **On the output front**, the first quarter brought some divergence between 'hard' data (GDP and retail sales) and 'soft' sentiment data (notably ISM surveys). GDP for the first quarter printed at 2.0% q/q annualized, with personal consumption expenditures growing at a 4.2% annualized pace – significantly stronger than anticipated. The strength of household spending no doubt reflects rapid growth in earned incomes (from a hot labour market) and the tapping of excess savings. Final sales to domestic private purchasers, which abstracts away from government activity and net exports, recovered to a 3.20% pace in the first quarter, having averaged around 0.90% in 2022.

Growth has likely also been supported by the passing of the CHIPS and IRA Acts, which has incentivized a surge in business investment in key technologies, clean energy and infrastructure. Simultaneously, the drag from the slowdown in residential construction has abated (see next section). In addition, the fiscal stance has swung back into deficit, at -6.8% of GDP – an unusual (and unhelpful) development at this stage of the cycle.

At the same time, there are reasons to be cautious about the growth outlook. Gross Domestic Income (GDI) has grown more slowly than GDP, often a negative precursor for GDP. Treasury tax receipts – a real-time measure of activity – have decelerated. Business confidence surveys, notably the manufacturing and services ISMs, have resumed their slide lower – with the manufacturing index in contractionary territory (see chart below). ISM surveys generally have good leading indicator properties, but currently suggest services are operating near trend, whilst manufacturing is in contraction. Further declines would be likely needed to infer the economy was in recession. The bottom line is that the much-anticipated recession has not yet arrived.

Manufacturing (blue) and Services (brown) ISM, with New Orders sub-indices



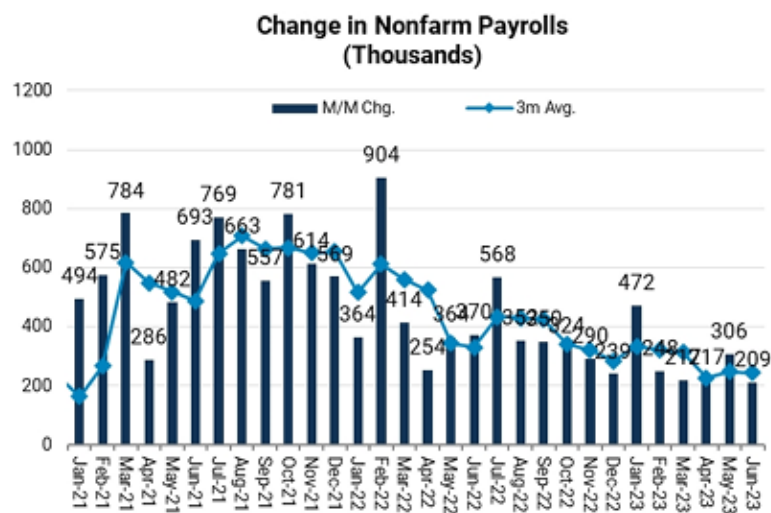
Source: Bloomberg; June 2023

- (iii) Since the FOMC is trying to constrain aggregate demand with tighter monetary policy, it is natural to focus on the interest rate sensitive sectors of GDP. For the US, one of the main transmission routes has historically been the residential property sector (via prices, construction and transaction volumes). Looking at **US residential construction sector**, it is notable that both homebuilder sentiment and construction activity continued to **improve** in the second quarter. The reluctance of many homeowners to move and abandon their low-rate mortgages has seemingly sharply reduced existing home transaction volumes, and hence the supply that would come from households that are downsizing. Limited supply, and rising household (nominal) incomes, have thus pushed prices back up, triggering a revival in new construction (and boosting the shares of homebuilders). There are also indications that new lease rent growth may correspondingly be reaccelerating, with implications for the Consumer Price Index (CPI).

The resilience of US housing to higher mortgage rates demonstrates that monetary policy transmission may be more limited when higher policy rates are applied to a fixed-rate mortgage market that has recently gone through a refinancing wave.

- (iv) The **labour market** certainly suggests that output has not yet slowed sufficiently. Employment gains remained robust in the second quarter, but there were some tentative signs of loosening in overall labour market conditions.

Over the second quarter, the establishment survey showed idle workers continued to be reabsorbed into employment. There were steady improvements in the prime-age labour force participation rate to 83.5%, taking the rate above the pre-pandemic peak of 83.1%, and towards the theoretical upper bound driven by demographics. Simultaneously, payrolls increased by a (revised) monthly average of 244,000 (to June) – well above the theoretical 100,000 needed to absorb population growth.



Source: Bloomberg, JEF Economics

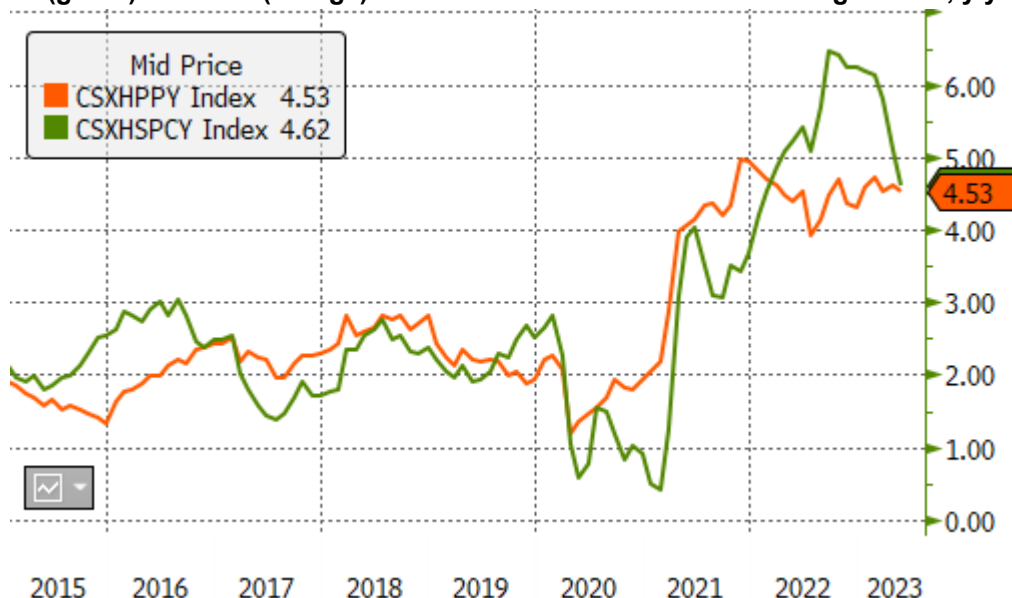
Nevertheless, despite strong payroll gains, there have been some signs of tentative easing in labour market strain. For example, average hourly earnings (AHE) and the Atlanta Fed wage tracker appear to have peaked. The Job Openings and Labour Turnover Survey (JOLTS) worker ‘quits’ rate has dipped, and JOLTS openings has fallen. The National Federation of Independent Business (NFIB) survey of small businesses showed fewer firms planning to raise compensation. These indicators suggest that even though the pace of hiring remains robust, the labour market is slowly rebalancing.

A key question for both investors and policymakers is whether wages can really normalize via a reduction in openings alone, or whether a rise in unemployment will be necessary to sufficiently cool wage pressures. The answer to this question will determine how far and how long the Fed will need to tighten policy (The Desk’s view is that some proportion of the rebalancing can occur without raising unemployment, but that ultimately an increase in the unemployment rate will be needed to bring wage growth to a level compatible with the inflation target).

- (v) **On the inflation front**, headline inflation fell amid base and energy effects, and an unwinding of supply disruptions. Headline CPI retreated from 6.0% y/y in February to 4.0% in May. Looking at the CPI components, shelter costs finally showed signs of moderation, as the slowdown in price gains on new leases finally began to be reflected in the CPI measure of average rents and owners’ equivalent rents (OER). But the non-shelter services ‘supercore’ measure – which is driven by wages and is the focus of the FOMC’s attention – remained at levels inconsistent with the Fed’s 2% PCE inflation target. CPI ‘supercore’ printed at 4.6% y/y in May, and Personal Consumption Expenditures (PCE) supercore printed 4.53% y/y. Nevertheless, the last PCE services excluding rents print was a mere 0.26% m/m, continuing a trend of declines over the last six months.

Over coming months, we anticipate there will be further softening in rents and OER. We also anticipate some softening in used vehicles prices, which have lagged the declines in Manheim used car index and Blue Book metrics. The most important component, of course, is core non-shelter services, where we expect to see continued softening as wages moderate, and some pullback in items like hotels, auto repair and auto insurance. Eventually, this means we will see a retreat in core and supercore PCE – allowing the Fed to pause their hiking cycle.

CPI (green) and PCE (orange) Measures of Core Services excluding Shelter, y/y %



Source: Bloomberg

Monetary policy developments in the second quarter

The FOMC understandably adopted a cautious approach following the regional bank crisis in the first quarter, and waited for evidence that the BTFP program and discount window had sufficiently addressed the liquidity needs of troubled lenders. Usage of the BTFP has gradually increased to \$103.081 billion (as of 28 June 2023), while use of the discount window declined. Regional bank deposit outflows have slowed significantly as depositor concerns abated and banks raised their deposit rates. Ultimately, the Fed and investors will be looking to the quarterly Senior Loan Officers Survey (next released in July) to see whether bank stress has aggravated the pullback in credit provision that was already under way.

By May, economic data and financial asset prices suggested spillovers from the regional bank crisis were contained, and FOMC members turned their attention back to robust labour market and core inflation data. Several Committee members communicated to investors that rate cuts (which were now priced to begin in the second half of 2023) were now highly unlikely, and that the FOMC's bias remained towards hikes.

By the June FOMC meeting, the bank crisis seemed all but forgotten. The Summary of Economic Projections (SEP) revealed significant upside revisions to growth and core inflation projections, and downside revisions to the unemployment rate. Furthermore, the Committee raised its policy rate dots for 2023 and 2024 by 50bps and 25bps, respectively. The Fed kept rates unchanged in June, but Chairman Powell was clear this was likely to be a 'skip' rather than a pause.

June 2023 Summary of Economic Projections (medians)					FOMC assessment of appropriate monetary policy, midpoint of target range for Fed funds
Variable	Median ¹				Percent
	2023	2024	2025	Longer run	
Change in real GDP	1.0	1.1	1.8	1.8	
March projection	0.4	1.2	1.9	1.8	
Unemployment rate	4.1	4.5	4.5	4.0	
March projection	4.5	4.6	4.6	4.0	
PCE inflation	3.2	2.5	2.1	2.0	
March projection	3.3	2.5	2.1	2.0	
Core PCE inflation ⁴	3.9	2.6	2.2		
March projection	3.6	2.6	2.1		
Memo: Projected appropriate policy path					
Federal funds rate	5.6	4.6	3.4	2.5	
March projection	5.1	4.3	3.1	2.5	

Source: Federal Reserve; June 2023

Strategy performance and attribution in the second quarter

At the beginning of the second quarter, our core views were as follows:

- We did not think that the regional bank crisis was systemic, but we were concerned that the potential tightening of credit provision would be macro-significant and contribute to tighter financial conditions and hence bring forward a growth slowdown. We were concerned about the impact on commercial real estate (CRE) in particular.
- We acknowledged the deterioration in ISM surveys and grew more cautious on growth prospects, encouraging a constructive view towards longer-term real yields.
- We also acknowledged the tentative evidence of a rebalancing of the labour market, but continued to regard wages, and hence services inflation, as sticky. We remained unconvinced that wages could fall sufficiently without a significant rise in unemployment.
- We anticipated that the Fed would likely raise rates only once more (in May) to 5.00-5.25% and judged that the hit to regional bank lending might have the same impact as two rate hikes. Nevertheless, we deemed it unlikely that the FOMC would cut rates while core inflation remained elevated, with cuts unlikely until late 2023 at the earliest and only 100bps of rate cuts in 2024.
- As bank stress abated during the second quarter, equity markets recovered, and policymakers communicated their bias to continue hiking, we revised up our targets for peak Fed funds and for Treasury yields but retained the view that ongoing policy tightening would slow the economy and contain longer-dated yields.

Correspondingly, in the second quarter our main positions were as follows:

1. We maintained a modest short duration position in 2-year Treasury futures to position for the removal of rate cuts that had been priced in after the Silicon Valley Bank crisis. We noted that the front end of the Treasury curve being inverted, a 2-year duration short has positive carry.
2. We initially established a small forward starting 5s / 30s steepener, to position for eventual rate cuts, with the intention to build the trade. However, we quickly unwound the trade, seeing how crowded investor positioning in curve steepeners was. The trade was intended to benefit from an eventual (mild recession), but with limited likelihood of aggressive rate cuts in coming months we concluded the trade was both ill-advised and too popular.
3. As longer-dated real yields backed up, we gradually added to a long duration position in 30-year real yields. With 10-year/10-year forward real yields reaching 2.00% in early June, we viewed valuations as having reached attractive levels, and we bought. The smaller underweight in TU contracts provided a hedge against aggressive rate hikes from the Fed.
4. We remained strategically overweight breakeven inflation rates (BEIs) – looking to trade 10-year BEIs in a 2.15-2.50% range. We regarded the stickiness of underlying core justified a constructive strategic position, whilst the upside for BEIs would be capped by the Fed's unwillingness to tolerate a reacceleration of inflation dynamics. We aimed to trade the range and collect positive inflation accretion in the meantime.
5. In security selection, we rotated back into the off-the run 30-year securities from benchmark 2052s, as the 20-year sector had recheapened. We also took profits on an overweight to 07/2028 TIPS, which richened prior to entering the 1- to 5-year index.

Current outlook and positioning

Economic data continues to give a mixed picture of the US economy, which both limits our conviction and leads to rapid shifts in market narratives.

In our mind, however, everything pivots around the answer to two key questions:

- (i) Is the labour market rebalancing possible without requiring significant rise in the unemployment rate?
- (ii) Is the US economy proving to be less responsive to monetary tightening than anticipated?

To the first question, we had thought that the thesis that the labour market could rebalance (i.e. demand and supply come into equilibrium, permitting a moderation in wage growth) without a meaningful rise in unemployment was wishful thinking. But, we have to acknowledge that wage gains and other signs of labour market strain have eased over the last year, without the unemployment rate having risen. Nevertheless, we think that there is a limit to how far this can go: on the supply side labour force participation among prime-age workers probably has little room left to rise, and on the demand side employers will at some point be looking to fire workers in addition to closing unfilled positions. Hence, we remain of the view that some period of below trend growth and accompanying rise in unemployment will be needed to bring wage growth closer to 3.5%.

On the second question – is the US economy proving to be less responsive to monetary tightening than anticipated – we think the answer has to be ‘yes’. This much is evident when we look at the ever-receding recession forecasts from both professional economists and the Federal Reserve. On US output growth, we agree with our US economist, Mark Allan, who recently wrote the following:

“The Fed has tightened monetary policy at a rate unprecedented since the early 1980s. But, despite that shift in policy, the headline economic activity numbers on spending and hiring are yet to show much sign of a slowdown. Most notably, the jobs market is still roaring away ... and there is still a huge pile of unfilled vacancies. While there are pockets of weakness in some of the most interest sensitive components of housing and durable goods demand, they are not of a scale that suggests the economy is about to tip into a major slowdown in the next 6 months given the ongoing resilience of most of the service sector.”

One possible explanation for the surprising buoyancy of the economy is the buffers built up in the corporate and household (in particular) sectors during the pandemic, coupled to an almost unprecedented federal fiscal deficit for a period of full employment. However, these buffers won't last forever, hence we do ultimately expect growth and hiring to slow. The historical record shows that tightening monetary policy quickly has often resulted in a recession and soft landings are rare. Consequently, while we are expecting stagnation, recession is not completely off the table and so the risks to the growth numbers in our baseline forecast are to the downside”.

This interpretation strikes us as reasonable. The monetary/fiscal policy mix has not been sufficiently restrictive because the US economy has been more resilient to tightening because of healthy corporate and household balance sheets, but the implication is that the central bank will therefore need to maintain restrictive policy for longer to get the effect that it wants. This means rates will be higher for longer, but probably not much higher because leading indicators like the ISM do show that a moderation in growth is coming, supercore inflation is no longer rising, and the labour market is indicating some rebalancing. Additionally, we are mindful that the student loan moratorium is set to expire in October, which could put additional strain on household finances.

Still, to finish the job on the inflation front, the Desk agrees with our economists that a rise in unemployment will be needed to fully return inflation to target. To achieve that, we think the Fed will need to raise rates at least once more in July to 5.25-5.50%, and then maintain rates on hold until the third quarter of 2024. By that point, there should be sufficient evidence that supercore PCE inflation is declining amid a mild recession, permitting the FOMC to begin gently lowering rates. By end 2024, the policy rate is likely to still be at around 4.50-4.75%. By end 2025, we anticipate Fed funds could have returned to 3.00-3.25%, which we consider to be broadly neutral.

As we commence the third quarter, our primary active positions are as follows:

1. We are overweight long-dated real yields. We see 5yr/5yr forward real yields at 1.43%, 10-year spot real yields at 1.81% and 30-year real yields at 1.78% offering good long-term structural value. Historically, longer-dated real yields offer value when they approach estimates of trend GDP growth – which we think is likely to be between 1.75% and 2.00%. We will look to add if real yields rise. The risk of this trade would be if it became evident that a structurally higher level of real yields was now becoming the norm.
2. At the same time, we maintain an exposure to a Treasury curve flattener, underweighting 2-year Treasury yields via futures against a long in 7-year TY futures. The flattener reflects our view that a little more tightening has yet to be priced into the very front end of the curve and protect portfolio performance as the market adjusts towards our expectations for the path of policy rates. By historical standards, however, curves are already extremely flat – so we will be looking for levels and triggers to exit the trade.
3. Simultaneously, we maintain a long in 10 and 30-year breakeven inflation rates (BEIs). 10-year BEIs are currently trading at 2.27%, towards the lower end of the recent 2.15-2.50% range, whilst core CPI inflation continues is still at 5.3 percent (albeit falling). Our thesis that inflation will fall only slowly means BEIs out to 10-years offer fundamental value. We must admit this long-standing trade has been frustratingly range-bound, and it is vulnerable to a downside move should the Fed need to adopt a far more hawkish stance (in which case our curve flattener would benefit, of course).

EUROZONE

Macroeconomic developments and outlook

PMI survey pointed to worsening outlook but easing in inflationary pressures

The Eurozone is in a technical recession, after real GDP shrank by 0.1% q/q in both the fourth quarter 2022 and the first quarter 2023, although the mild contraction is a sign of resilience in the face of an energy shock, high inflation, and tightening monetary policy. Looking ahead, economic headwinds from the energy shock should continue to ease, thanks to the recent decline in energy prices, high natural gas storage levels, and the associated moderation in inflation amid a strong labour market. However, while PMI surveys pointed to easing inflationary pressures, the manufacturing sector remains weak and growth momentum in the services sector seems to be dissipating.

The final June Eurozone composite PMI fell to 49.9, into contraction territory and down from the recent high of 54.1 in April. This signaled a stalling of the Eurozone economy. The downturn in the manufacturing sector deepened, with the manufacturing PMI declining further into contraction territory from 47.3 a quarter ago to 43.4 in June. Services PMI fell from the recent high of 56.2 in April to 52 in June, pointing to slowing momentum in services activities.

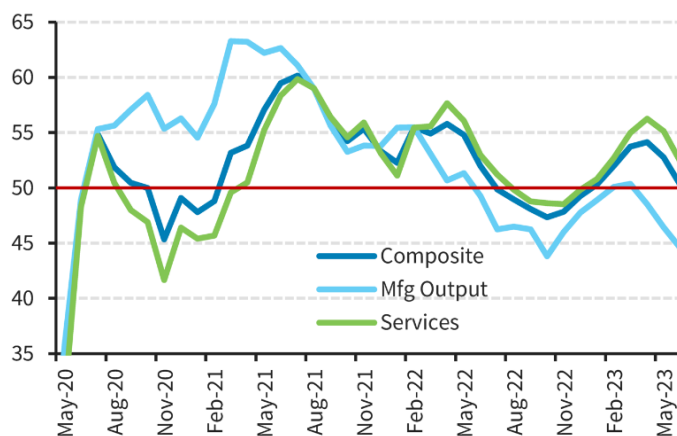
The weakness in PMI was broad-based across the Euro area, with Germany's composite PMI dropping 3.6 points from the April level to reach 50.6 in June. France's and Spain's fell meaningfully over the last two months and reached 47.2 and 52.6 in June, respectively. Italy's composite PMI printed at 49.7.

The slowdown in June PMIs is the second disappointment in a row. If one had doubts that the moderation in May's PMI was a fluke that followed a period of improvements since last winter, the June data proved that May's decline was not a one-off over an uptrend. Quite the contrary, the deterioration in PMI was sharper and broader than market participants were expecting.

According to the survey, higher inflation and more challenging financial conditions were contributing factors to the decline in business activity. The more forward looking sub-indices within the PMI survey, including new orders and future expectations, fell in June. These, alongside with an acceleration in the rundown of backlogs, pointed to downside risks to output in July.

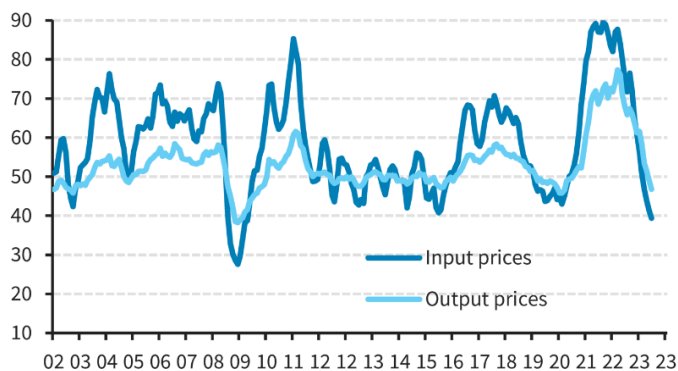
On a more positive note, input and output price sub-indices within the manufacturing and services survey declined, pointing to easing inflationary pressures. The manufacturing price indices are now at sub-50 levels. While services price indices are still elevated, their recent moderation is still encouraging.

Euro Area PMI Declined over the Course of the Second Quarter



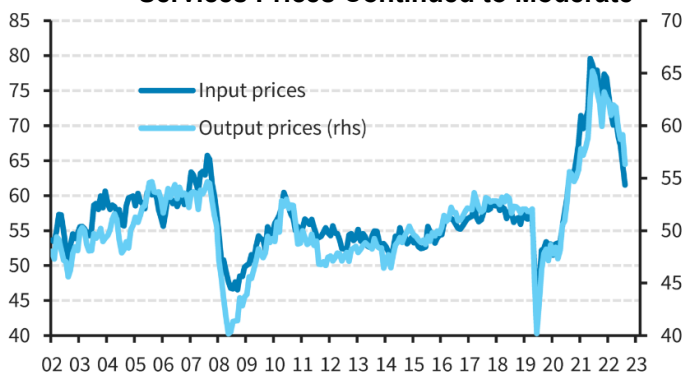
Source: S&P Global, Bloomberg, Barclays Research; June 2023

Prices in the Manufacturing Sector Fell Further in the Second Quarter



Source: S&P Global, Bloomberg, Barclays Research; June 2023

Services Prices Continued to Moderate



Source: S&P Global, Bloomberg, Barclays Research; June 2023

The Euro area Economic Sentiment indicator compiled by the European Commission (EC) echoed with the message we got from the PMI survey – manufacturing contraction is deepening, while services activity is softening. The European consumer however is more optimistic, as the fall in headline inflation is leading to a further improvement in confidence. At the same time consumers further lowered their one-year ahead inflation expectations (now at a 7-year low). The improvement in sentiment could lead to a rebound in consumption in the coming months.

European Commission Sentiment Indicator



Source: European Commission; June 2023

Labour market remained strong

The labour market remained strong in recent months, with Euro area unemployment rate falling to 6.5% in May and June, a 0.2 percentage points decline from 6.7% at the beginning of the year. The labour force has continued to grow, and remained the main source of employment creation. Cumulatively, almost 3.5 million jobs have been added since the start of 2022, largely thanks to an expanding labour force. Labour demand remains strong, with the job vacancy rate broadly stable at 3.0%, close to the highest level since the start of the series. Forward-looking data pointed to continued, albeit decelerating employment growth.

With a tight labour market, wage growth remained strong, and rose from 4.8% in the final quarter of 2022 to 5.2% in the first quarter of 2023. Moreover, forward-looking information from recently concluded wage negotiations suggests that nominal wage pressures remain strong, especially when also considering the one-off payments which were prevalent in recent agreements in some Euro area countries.

Future progress in headline disinflation, core inflation will remain sticky in the third quarter

The disinflation process in headline inflation has moved further along over the past quarter, as headline HICP continuing its decline, falling to 5.5% y/y in June, down from 6.9% in March. Lower energy prices were again the main driver of the decline, printing at -5.59% y/y in June.

Energy inflation is likely to further subtract from headline HICP as the year progresses, with base effects becoming particularly strong in the autumn months as fixed-term gas and electricity contracts are renewed and regulated tariffs are revised lower. With EU gas storage near a record high at 78% of total capacity in June, and renewables electricity generation running strong, wholesale energy prices are now close to their 2021 levels, or roughly about five times below last summer's peak. This suggests further energy price disinflation in the pipeline, although the timing of such will vary across member states depending how previous energy subsidies are being unwound.

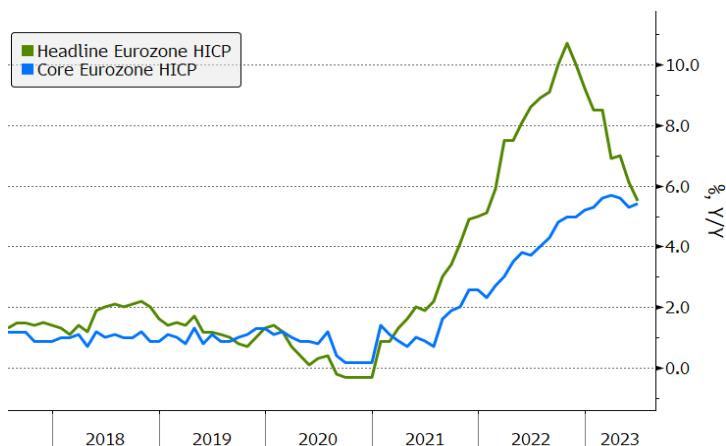
In terms of food prices, after a sharp increase last winter, with food inflation reaching a historic high of 15.5% y/y in March, momentum in food inflation moderated in the second quarter, although still running at +11.7% y/y in June. But falling wholesale food prices pointed to further slowing in HICP food inflation in the coming months. That said, climate events and geopolitical risks could still bring unpleasant surprises to energy and food prices in the near term.

Core inflation, having reached a peak of 5.7% y/y in March, have been moving sideways in recent months, with the latest June core HICP printed at 5.4% y/y. Within the core inflation basket, the yearly services inflation has been on an upward trajectory since mid-2021, reaching 5.4% y/y in June. The persistence in services inflation reflects that some cost pressures and reopening effects are still passing through. At the same time, rising wages are adding inflationary pressure to labour-intensive services.

In contrast, price growth for non-energy industrial goods decelerated from 6.6% y/y in March to 5.5% y/y in June. While both core goods and services inflation remained at elevated levels, the divergence in the direction of recent their changes is consistent with the picture painted by the PMI survey.

Looking ahead, we anticipate further disinflation in non-energy industrial goods prices, while services inflation will likely stay elevated for the coming quarter as effects of recent increases in negotiated wages continue to pass through into consumer prices.

Euro Area HICP



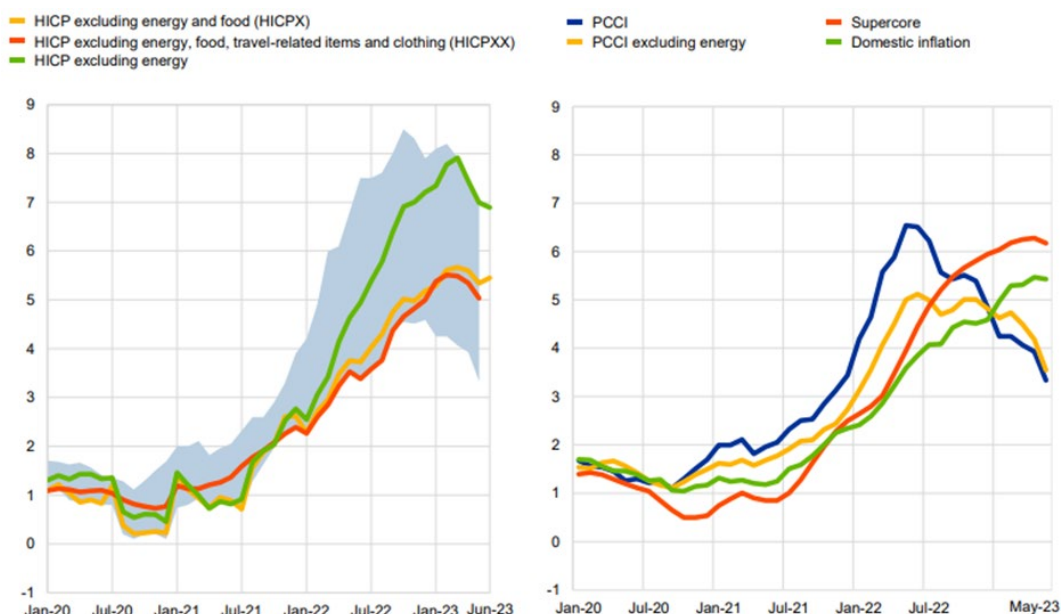
Source: Bloomberg, Eurostat; June 2023

Underlying inflation measures showed tentative signs of levelling off

Underlying inflation measures have been an important consideration when assessing the inflation outlook and risks, as they aim to capture more persistent price developments in order to provide a clearer signal for medium-term inflation developments.

While underlying price pressures remain strong, the latest set of underlying inflation indicators showed early signs of levelling off. However, the “super core” indicator (which comprises HICP items sensitive to the business cycle), and domestic inflation indicator (which excludes items with a high import content) were still rising in the latest April readings. This pointed to the prevalence of persistent domestic price measures, as costs pressures from the energy shock and supply chain bottlenecks receded.

Measures of Underlying Inflation (y/y %)

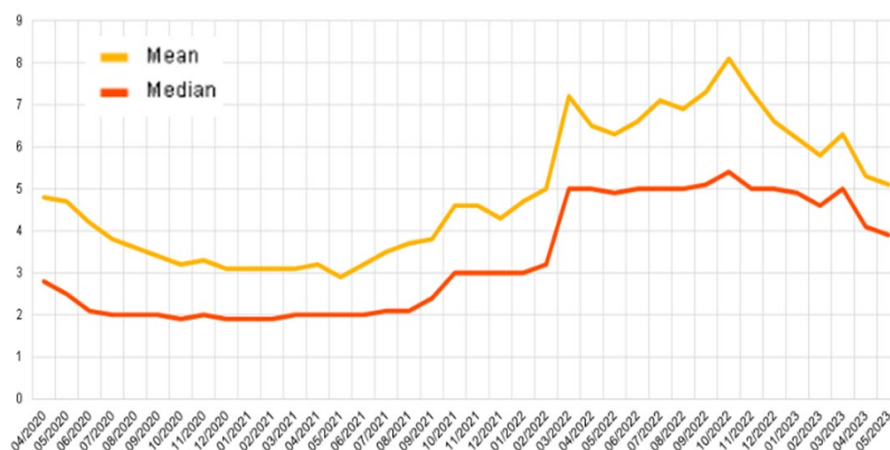


Source: Eurostat and ECB Staff calculations; June 2023

Consumer inflation expectations moderated further

According to the ECB Consumer Expectations Survey, Euro area consumers expect inflation to decelerate ahead. Median expectations for inflation over the next 12 months continued to decline, moving down from 5% in March to 3.9% in the latest May read, likely reflecting in part lower realized inflation. Expectations for inflation three years ahead edged down from 2.9% in March to 2.5%, although still above the ECB’s 2% target. Uncertainty about inflation expectations 12 months ahead, as measured by the dispersion in responses, fell to its lowest level since March 2022, right after the start of the war in Ukraine.

Consumer Inflation Expectations over the Next 12 Months

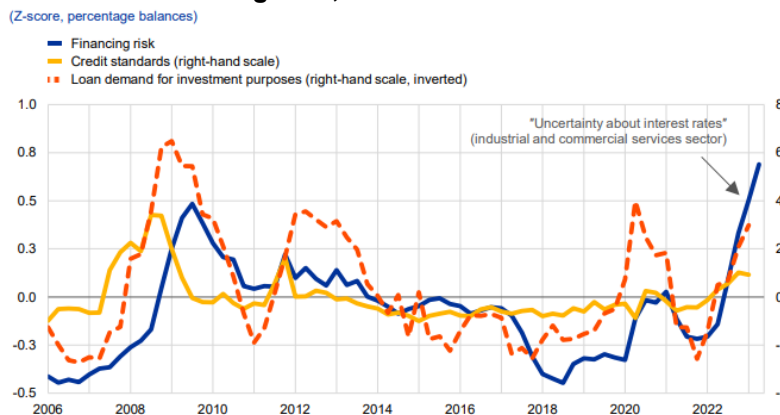


Source: ECB Consumer Expectations Survey; May 2023

Tighter credit standards and weak loan demand

The ECB Bank Lending Survey (BLS) published in early May pointed to a further substantial net tightening in credit standards for loans to firms and for house purchase. From a historical perspective, the pace of net tightening in credit standards remained at the highest level since the Euro area sovereign debt crisis in 2011. Loan demand also remained weak. The effects of higher interest rates continued to weigh on credit demand from both corporates and households. Reduced fixed investments from corporates, softer consumer confidence and pessimism about the prospects for the housing market also weighed on loan demand.

Euro Area Financing Risk, Credit Standards and Loan Demand



Source: ECB Bank Lending Survey, ECB Staff Calculations; May 2023

Monetary policy update

The ECB downshifted the pace of rate hikes in the second quarter, and raised policy rates by 25bps in each of the May and June meetings. This took the deposit rate to 3.5% following the June decision. In addition, the ECB announced to fully discontinue asset purchase programme (APP) reinvestments starting in July.

While the policy actions were in line with market consensus, the communication in both of the meetings were more hawkish than expected. In each of the meetings, President Lagarde continued to characterize inflation as being too high for too long. When asked about whether the ECB is in the last stretch of the tightening cycle, Lagarde answered that the ECB is still on a “journey” and not yet at the “destination”, and that there is still “more ground to cover”. In May, Lagarde pointed out that some Governing Council members wanted a 50bp hike, but no one wanted a pause. In June, the updated ECB’s inflation forecasts sent a message that was significantly more hawkish than expected.

In the ECB staff macro forecasts, core inflation was revised up significantly across the whole forecasting horizon, as the ECB now sees core inflation at 3.0% next year (up from 2.5% in March) and at 2.3% in 2025 (up from 2.2% in March). The upward revisions were largely driven by strong wage pressures in the context of a persistently hot labour market. Headline inflation was also revised higher to 2.2% in 2025 (up from 2.1% in March). In the press conference, President Lagarde added that the ECB is “not satisfied” with the inflation outlook.

Overall, the message was clear that the ECB is not yet done tightening, and that it remains fully data-dependent. By emphasizing that the ECB was “not at its destination” once again in June, Lagarde hinted that a further hike to 3.75% in July is almost certain, although she was also careful not to guide expectations for September one way or another.

ECB June Macro Projections (and Previous Projections in March)

%	2023	2024	2025
HEADLINE INFLATION	5.4 (5.3)	3 (2.9)	2.2 (2.1)
CORE*** INFLATION	5.1 (4.6)	3 (2.5)	2.3 (2.2)
GDP	0.9 (1.0)	1.5 (1.6)	1.6 (1.6)

Source: ECB; June 2023

Eurozone inflation-linked bond second quarter performance review

Despite substantial slowdown in growth over the past couple of quarters, the outcome was more resilient than previously expected, thanks to a mild winter and fiscal support which helped companies and households to muddle through the energy crisis. Against this backdrop, persistent strength in the labour market and core inflation meant that the ECB had more work to do, and we saw market pricing for ECB peak policy rate moved roughly 42bps higher over the course of the second quarter. At the end of June, market was pricing in a peak policy rate at around 3.90% by the end of 2023. Nominal yield curves flattened further into inverted territory over the same timeframe, with the nominal 2s10s yield curve in Germany moving from -40bps to around -80bps by the end of June, leaving 10-year Bund yields trading in a tight range over the quarter. With the ECB determined to tighten further and stay restrictive for longer in order to deliver their price stability goal, and natural gas price volatility contained, breakeven inflation rate in the 10-year sector was also range-bound, with 10-year HICP swap rate oscillating between 2.33% to 2.55% over the last three months. Peripheral bond spreads were steady in April and May, with 10-year spread between Italian BTP and German Bund hovering around 185bps, until it tightened to as low as 155bps in mid-June, as investors started to enter carry trades in anticipation for a Goldilocks environment in the coming months.

In terms of portfolio positions, we established a short duration bias in the Eurozone against US Treasuries in April. Relative to the US, the banking sector is more resilient and well regulated in the Euro area, which should help to shield the Euro area economy to further concerns over the turmoil in the US regional banking sector that manifested at the end of the first quarter. At the same, heavier net government bond supply and elevated core inflation in the Euro area should pressure European bond yields higher relative to that in the US. However, the position detracted from performance, as the US debt ceiling negotiations settled a lot more smoothly and promptly than expected, and macro data also pointed to more visible softening in the Euro area relative to that in the US, which in turn caused US Treasuries to underperform. We closed the position at a loss, as the rationale of the trade did not materialize, and strong seasonals over the summer months with issuance hiatus in the Euro area may also help Euro government bond markets to outperform.

We maintained a short bias in longer-dated BEI. We remained of the view that the scenario of sticky core inflation was well advertised and well-priced, and the combination of continued ECB tightening and slower growth should bode poorly for Euro BEI. We believed the risk of a wage-price spiral was low, and the ECB's strong focus on real-time inflation outcomes in its current framework could increase the risk of overtightening amid already tight credit conditions. The BEI position had limited impact on performance.

In yield curve, the imbalance in demand and supply in long-dated real yields have kept the sector rich relative to the shorter-end of the curve, and prompted us to maintain a steepening bias. With the situation around energy supply more stabilized, and energy base-effect anticipated to drive headline inflation lower over the course of 2023, we have switched our 5s30s real yield curve steepener into a 10s30s steepener early in the year. Despite the strong flattening move in government bond curves over the past quarter, our 10s30s position was protected by attractive inflation carry in shorter-dated linkers, as well as the lower sensitivity to policy rates repricing in 10s relative to the 5-year sector.

Within the French linkers market, we re-established an overweight in bonds referenced to Euro HICP (OATei's) versus those referenced to French CPI (OATi's). Over the course of 2022, demand for French inflation was strong due to large increases in Livret-A hedging from French domestic accounts, pushing French CPI BEI to rich levels relative to BEI rates referenced to Euro HICP. Our underweight in French CPI linkers (OATi's) benefited from supply concession around the new CPI linker OATi 2039 syndication.

Overall, our active positions in the Eurozone detracted slightly from performance in the second quarter.

Outlook and current Eurozone inflation-linked bond exposures

While the Euro area's economy was more resilient than expected during the first half of 2023, we expect growth to stagnate over the next few quarters, as the impact of significant monetary policy tightening and the rolling back of fiscal support will likely offset the positive impact from the unwinding of the energy price shock and positive real income growth. Yet, the mild slowdown in demand is unlikely to cause a significant increase in unemployment, as structural factors such as demographics and sectoral mismatch will likely keep the labour market tight. This, alongside with sticky core inflation, suggests that the ECB will maintain a hawkish bias until more evidence of sustained disinflation emerges.

The impact of the inflationary squeeze on consumers and businesses was not as severe as it could have been, thanks to fiscal support and a strong labour market. In the coming quarter, the backward-looking nature of wage negotiation process with pay settlements largely influenced by past realized inflation suggest that real wage growth in the Euro area is turning positive. The combination of falling headline inflation, a resilient labour market, and strong nominal wage growth points to increases in households' real disposable income, which in turn should provide support to consumption.

However, credit conditions in the Euro area had already tightened meaningfully, and the effects of higher interest rates continued to weigh on credit demand from both corporates and households. Industrial production data also pointed to weaker business investment ahead. The silver lining is that motor vehicle production is catching up, as global supply chain easing finally allow the auto industry to fill the long backlog of orders. Overall, business and housing investment will bear the brunt of monetary tightening which will weigh on economic growth.

In terms of fiscal policy, after years of fiscal loosening to provide public support during the pandemic and to cushion the energy crisis, we expect fiscal aids to be gradually rolled back and the focus will now shift to restoring medium-term fiscal sustainability. That said, public investment expenditures will likely be protected with contribution from the Next Generation EU funds and other EU budget.

The fall in headline inflation should alleviate cost pressure on consumption, but core inflation will likely remain stubborn the coming months. Against the backdrop of a mild recession, falling unemployment and rising wage growth, the ECB will likely maintain a hawkish bias despite having slowed the pace of rate rises in the last two meetings. We believe the ECB is in the last stretch of the hiking cycle. While inflation dynamics are still in the spotlight, near-term persistence in core price pressures is likely balanced by considerations of cumulative effects of past monetary tightening and rising economic uncertainty. Another 25bp rate hike by the ECB in the July meeting is almost certain, and the odds for deposit rate reaching 4.00% by September is high. Beyond that, falling headline inflation, tighter financial conditions and decline in loan demand imply that policymakers would see the tradeoffs between not tightening enough and over-tightening as more balanced.

Our expectation for the ECB deposit rate to reach 3.75% to 4.0% over the next quarter is in line with the consensus view. We are cognizant that as headline inflation has peaked, and with the end of this current monetary policy tightening cycle in sight, investors may want to reallocate into Euro government bonds. Issuance hiatus in Euro government bond markets over the summer months has typically helped their performance as well. However, the overall issuance needs from Euro economies are at historical highs, and continued strength in the labour market and wage inflation in the absence of a large external growth shock also pose upside risks to government bond yields. We expect German 10-year yields to settle in a higher range between 2.25% to 3.00% in the coming months, and will be intending to establish a long duration position should Bund yields reach the higher end of the range.

As for peripheral spreads, we are cognizant that political risk in Italy has receded, and cheap loans and grants from the Next Generation EU program should help Italy's debt sustainability outlook at least in the near term. Resilience in peripheral bonds was notable in March, when their underperformance versus core Euro government bonds was brief and shallow despite heightened market risk aversion. In the near term, we see no clear catalyst for peripheral spreads to widen, and have therefore turned neutral in our allocation to peripheral bonds in the portfolio.

We maintain a short bias in longer-dated BEI. We remain of the view that the combination of continued ECB tightening and slower growth should bode poorly for Euro BEI. We believe the risk of a wage-price spiral is low, and the ECB's strong focus on real-time inflation outcomes in its current framework increases the risk of overtightening amid tightening credit conditions.

UK

UK macroeconomic developments

PMI surveys pointed to decelerating growth momentum

With the fourth quarter 2022 and first quarter 2023 real GDP both printed at +0.1% q/q, the technical recession that economists had penciled in for the UK last year has been avoided. While economic growth turned out to be more resilient than expected, March monthly GDP contracted 0.3% m/m and April monthly GDP rose only 0.2% m/m, suggesting that growth has been at best flat lining in recent months.

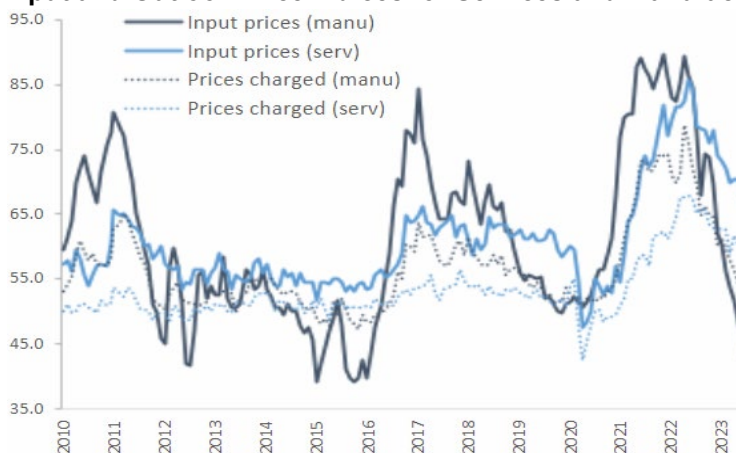
Indeed, after having bounced from contractionary levels at the turn of the calendar year to expansionary levels since February, the UK composite PMI seemed to have plateaued over the course of the second quarter. The composite PMI printed at 54.9 in April, but decelerated to 54.0 in May and 52.8 in June. The moderation came from both the manufacturing sector, which dipped further into the contractionary territory from 47.8 in April to 46.5 in June, and the services sector, which started to lose momentum as the PMI services index declined from 55.9 in April to 53.7 in June.

Within the services PMI, the new orders and outstanding business sub-indices decelerated, where the loss of momentum was attributable to softer consumer spending and softer demand in construction and real estate sectors, likely a result of tighter monetary policy as well as high inflationary pressures. Still, the services employment sub-index for employment pointed to continued strength, reflecting the tightness in the labour market.

Signals from manufacturing sub-indices were mixed. Manufacturing output stabilized in June, a tentative sign that the sector might be “bottoming out”, although new orders fell again to 44.9 in June from 46.6 in May.

Price signals from the PMI survey were encouraging. On balance, manufacturing companies reported a fall in both input and output prices, with the two price indices both printing at sub-50 levels for the first time since March 2016. In the services sector, the input prices sub-index, having been stable since March, took a leg lower in June on the back of falling fuel and energy bills. Services output price sub-index, however, remained stubborn at elevated levels, as companies passed on higher wage costs to consumers.

PMI Survey Input and Outlook Price Indices for Services and Manufacturing Sectors



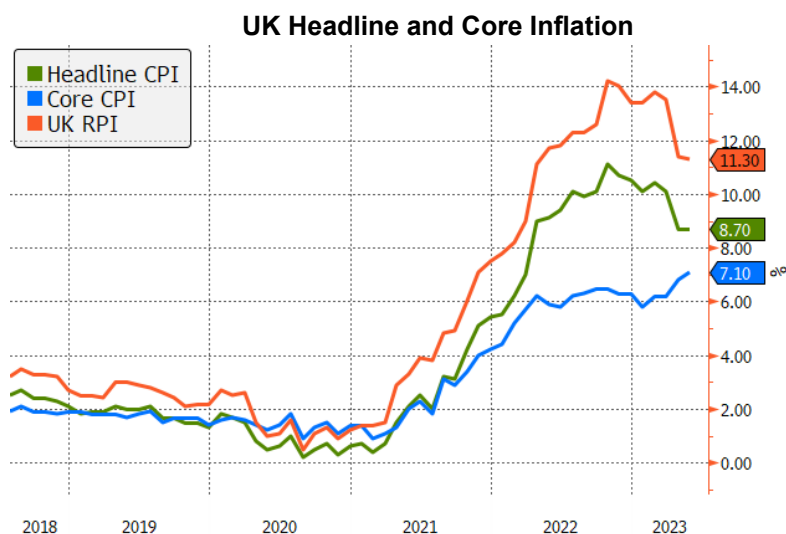
Source: Haver, RBC Capital Markets; June 26, 2023

UK core inflation accelerated in the second quarter

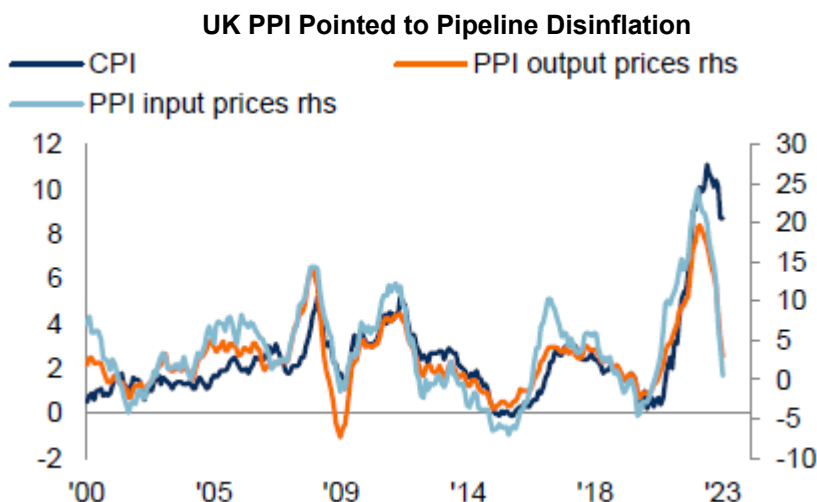
After printing at double-digit levels in the first quarter, the large and favorable energy base effect, with utility prices resetting lower in April, was supposed to help lower headline CPI from 10.1% y/y to market consensus of 8.2% y/y in April. Instead, the April inflation print was a shocker, with headline CPI falling a lot less than expected to 8.7% y/y, and stayed steady at the same level in May. While energy base effects behaved as expected, food's contribution to annual inflation was extremely large at slightly above two percentage points.

More importantly, core CPI inflation accelerated sharply from 6.2% y/y in March to a 31-year high of 6.8% y/y in April, against market expectation of an unchanged reading. Core CPI rose further in May to 7.1% y/y, again beating market expectations. The increase in core inflation came mainly from services. While some may point to the Coronation bank holiday and popular concerts taking place in the UK as one-off drivers pushing services inflation higher in May, the breadth of price pressures in recent months suggested a more broad-based and domestic issue arising from strong wage gains and resilient pricing power of consumer-facing businesses. On the more optimistic side, there were signs of moderation in core goods prices, as goods prices outside of household and medical products softened.

Looking ahead, despite the recent stubbornness in inflation, headline CPI is still expected to fall sharply. Energy prices will continue to detract from headline inflation, given the 17% decline in utility bills set by the Office of Gas and Electricity Markets (Ofgem) price cap in July, and a likely further 5% decline in October. Food inflation has likely peaked, as there are increasing signs of competition, but the path lower could be gradual. Core good prices would probably decline further on the back of plummeting wholesale costs as indicated by producer prices indices (PPI) and PMI price surveys. Core services inflation is unlikely to recede quickly in the near term, as upward wage adjustments following rounds of (still ongoing) workers strikes will take time to manifest in the data. However, forward-looking data pointed to an easing labour market and moderating wage growth. Interestingly, business and consumer surveys showed declines in inflation expectations, despite the rise in realized core inflation, suggesting that the risks of a further wage-price spiral may not be as high as currently feared.



Source: Bloomberg; June 2023



Source: State Street Global Markets, Bloomberg; June 2023

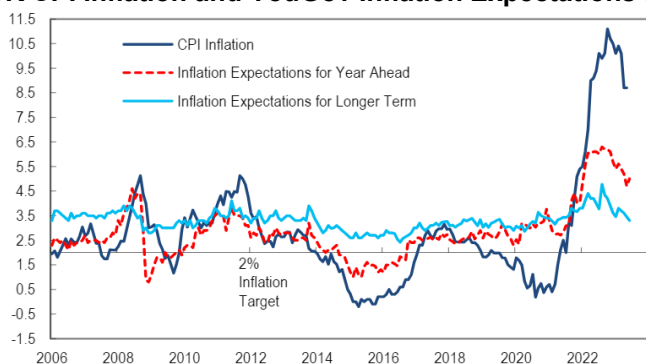
Inflation expectations softened despite rising core inflation prints

According to the Citi/YouGov survey, households' inflation expectations for five-to-ten years ahead eased in June to 3.3%, 1.5 percentage points below the peak of 4.8% seen in August 2022 and down from 3.7% in March and 3.5% in May this year. The June result was also consistent with the 2.9%-3.4% range observed in the years prior to the pandemic. Moreover, details of the Citi/YouGov survey suggested that the decline in inflation expectations was broad-based across age groups and occupational categories. These mark a continuation of normalization in long-term inflation expectations since the third quarter of 2022.

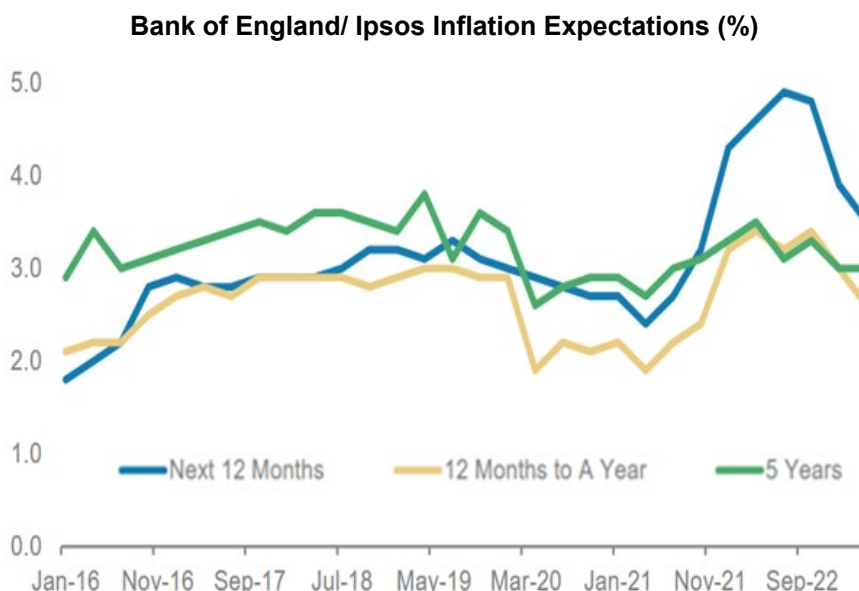
For short-term inflation expectations, the Citi/YouGov survey showed a small setback with the 12-month ahead measure ticking back up slightly to 5.0% in June from 4.7% in May. However, the current 5.0% level is still more benign than the 5.4% reading in March, and is meaningfully below the peak of 10.3% observed in August 2022. In addition, the Bank of England/Ipsos survey for the second quarter showed short-run inflation expectations falling to 3.5% in the second quarter, marking a 1.4 percentage points decline over the past three quarters. In the same survey, expectations two years out also fell to 2.6% from 3.0% in the first quarter.

There are also reasons to expect short-term inflation expectations to fall in the coming months, as retail food and goods prices are softening. The British Retail Consortium data for June showed shop price growth easing from 0.5% m/m to 0.2% m/m. This brought the yearly headline rate falling from 9.0% in May to 8.4% in June – the largest single month decline since the start of 2021. The easing came both from discounting on clothing and electrical goods, as well as softer fresh food prices.

UK CPI Inflation and YouGov Inflation Expectations (%)



Source: ONS, YouGov, Citi Research; July 3, 2023



Source: Bank of England/ Ipsos, Morgan Stanley; June, 2023

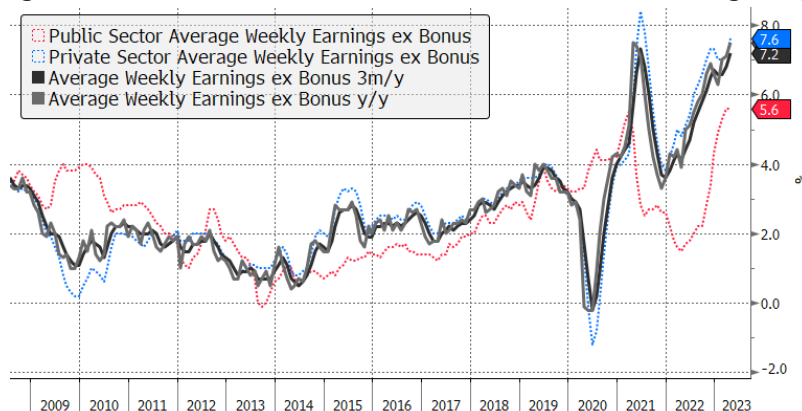
Mixed signals from labour market report

The latest UK labour report came in stronger than expected. Regular pay growth increased by 7.2% 3m/y in the period ending in April, up from 6.8% 3m/y in the previous reading, and against market expectation of a 6.9% 3m/y print. The number of pay rolled employees rose 23,000 in May, and the surprisingly weak -136,000 reading in April was revised to +7,000. It is worth highlighting that the April wage growth data was the first to include the long-known 9.7% rise in the minimum wage. That said, the upside surprise relative to forecasts suggests that the degree of underlying wage growth was stronger than expected.

The headline unemployment rate for the three-month period ending in April declined to 3.8%, from 3.9% in the previous print, versus consensus for an uptick to 4.0%. The fall in the unemployment rate was accompanied by a further decline in inactivity. Inactivity declined by 0.4 percentage points to 21% in June, with the elderly cohorts and people who were previously looking after the family re-entering the workforce. There were also signs that demand for labour slowed further. The number of job vacancies declined by 35,000 in May, and redundancy rate ticked higher to 3.3% from 2.8%.

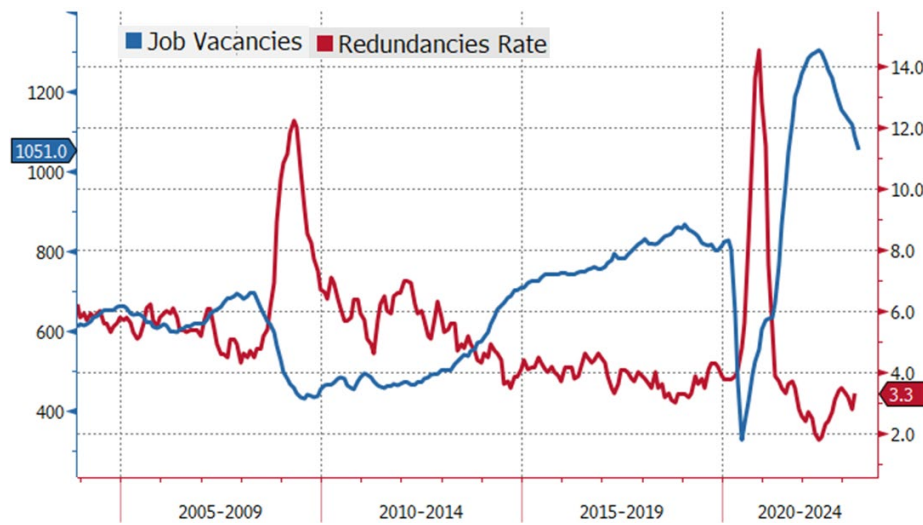
Overall, the strength in wage growth and the very slow easing of the labour market is consistent with the expectation that the Bank of England (BoE) will have to tighten policy rates further in order to lean against inflation.

Wage Growth Accelerated in the Three-Month Period ending in April



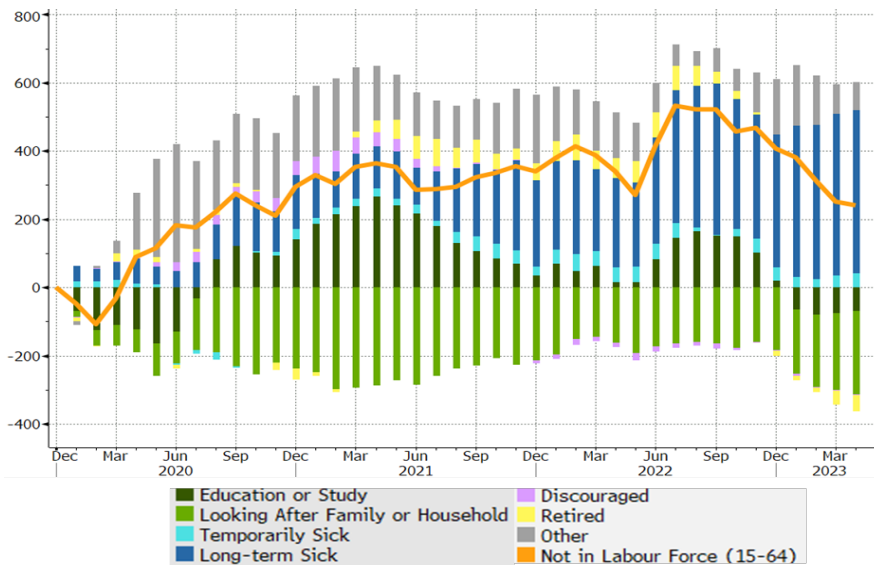
Source: ONS, Bloomberg; June 2023

Vacancies (thousands, LHS) and Redundancies Rate (% , RHS)



Source: ONS, Bloomberg; June 2023

Change in Inactivity among 16 to 64-Year-Old Relative to 2019 Levels (thousands)



Source: ONS, Bloomberg; June 2023

Labour supply shortages

Across much of the developed economies, the post-pandemic burst of higher inflation has started to abate as supply chain bottlenecks and reopening effects on services consumption started to normalize. The UK, however, is an outlier with core inflation marching higher still. The UK is in a different situation where it suffered from both labour shortages like in the US and the energy crisis afflicted across Europe.

The lingering effects of Covid and the impaired public health system in the UK contributed to reduced labour supply. Breakdown in labour inactivity as discussed in the previous section showed a continued climb in people being out of work due to long-term sickness, despite a fall in overall inactivity. Recent government data showed that the queue to begin hospital treatment in the UK has lengthened to 7.4 million people as of end of April, despite Prime Minister Sunak’s commitment to reduce the care backlogs.

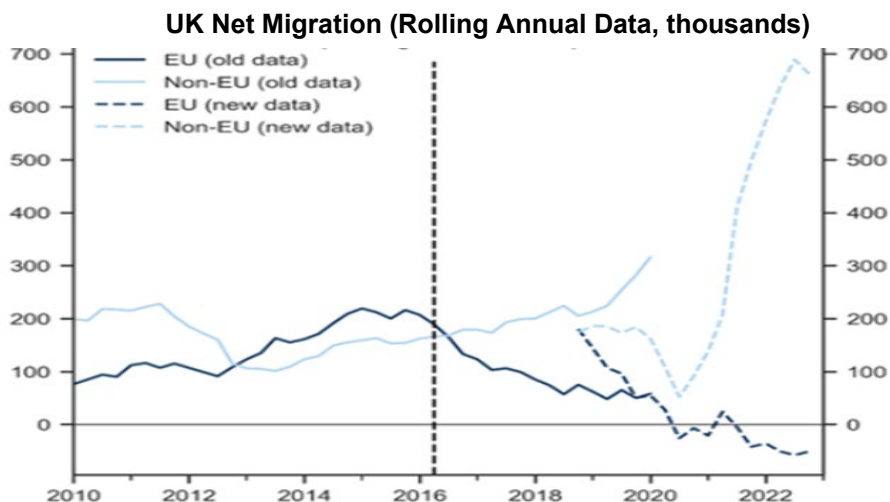
In addition, consequences from Brexit also added to the inflation burden. Trade friction with the European Union (EU) added paperwork and costs on goods crossing the borders. Research by the London School of Economics suggested that a third of UK food price inflation from end-2019 to March 2023 was a result of £7 billion extra border costs added to the grocery bills. BoE Chief Economist Huw Pill said in February that the hit to supply and productivity from Brexit added to the risk of the UK economy overheating. A recent Goldman Sachs economics research found that the post-Brexit change in immigration flows has contributed to the overheating of the UK’s labour market, although the magnitude of the effect is difficult to pin down.

According to the Office for National Statistics (ONS), net migration to the UK reached a record high of 606,000 in the year ending 2022. The ONS said 925,000 of those arriving in 2022 were non-EU nationals, 151,000 came from the EU and 88,000 were British citizens. Looking back at the migration pattern over the past couple of decades, there has been a notable shift in the composition of the country of origin of migrants.

Since the Brexit vote in 2016, net migration from outside of the EU has sharply increased while that from the EU, especially from Eastern Europe, has meaningfully declined. Moreover, the post-Brexit migration regime introduced in 2021 also shifted from one that allowed free movement for EU workers to one which is selective in terms of skills.

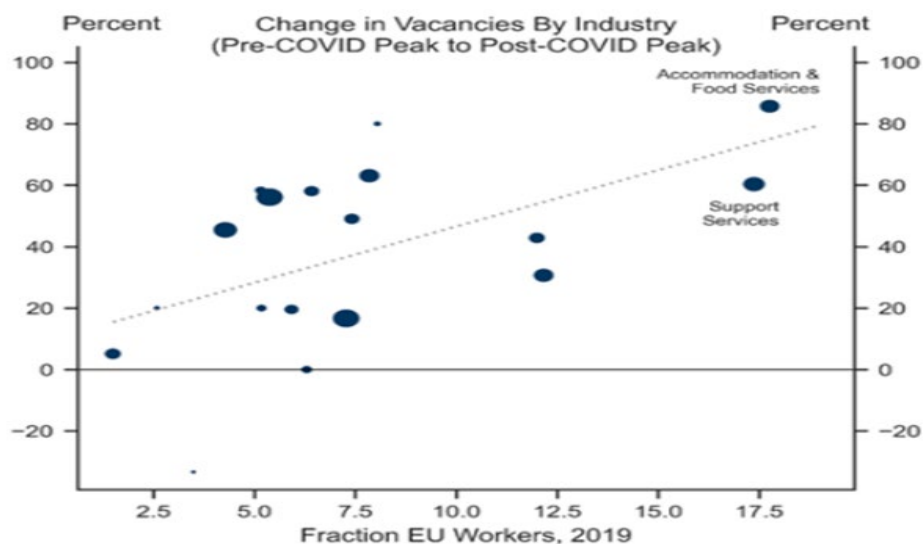
Immigrants from the EU have historically been concentrated in lower skilled occupations, and are harder to replace under the new skill-selective migration regime. Recent data suggests that the sectors that used to see the highest inflow of EU workers have also seen the largest increase in vacancy rates. The lower EU immigration therefore may have played a role in exacerbating labour market tightness.

At an aggregate level, the effect of migration affects both the supply and demand sides of the economy. Prior to Brexit, net migration from the EU was predominantly work-related. More recently, the main reasons for immigration have shifted away from people looking for work in the UK towards immigration for humanitarian reasons and for study. As such, the recent increase in net of migration may have brought more demand to the economy, but only partially compensated the decline in EU migration in terms of the extent of participation in the labour market.



Source: Goldman Sachs Global Investment Research, ONS, Haver; June 2023

Lower EU Immigration Helps Explain Labour Shortages



Source: Goldman Sachs Global Investment Research, ONS, Haver; June 2023

Monetary policy updates

The series of upside surprises in wage growth and inflation data meant that the BoE had to continue on with its tightening cycle, despite having communicated earlier in the year that a pause in interest rate hikes was near. There were also increasing criticism on the central bank’s failure to predict the rise and persistence of UK inflation, which cumulated to a cross-party group of MPs calling for an overhaul of the inflation forecasting processes. In response, the BoE announced in June that it is launching an external review on its inflation forecasting and related processes. In the meantime, the BoE adjusted its communication in both the May and June meeting.

In May, the Monetary Policy Committee (MPC) voted to raise policy rate by 25bps to 4.50%, in line with market expectations. The vote split was 7-2, with dissenters Tenreyro and Dhingra preferring a pause instead. In terms of policy guidance, the MPC retained its wording from March, where it said “if there were to be evidence of more persistent pressures, then further tightening in monetary policy would be required”. With the voting pattern and language on forward guidance unchanged from before, the MPC remained in a data-dependent mode. Nevertheless, there were meaningful changes to the Bank’s macro forecasts in the quarterly Monetary Policy Report. The BoE revised away its previous expectation for a recession, and instead penciled in positive calendar year growth in 2023 and 2024, albeit at modest GDP growth levels. On net, the size of the upward revision in GDP growth was considerable. Similarly, unemployment rate expectations were also revised, with the new forecast showing a climb from the current 3.8% to 4.5% in 2025, versus 5.25% in the forecasts published in February. Model inflation forecast for the central case in 2025, based on market rate expectations, was revised higher from 0.8% to 1.1%, and the new 2026 model inflation forecast stood at 1.2%. The tone of the minutes also leaned a bit more hawkish, as the MPC discussed the possibility that the second-round effects of external cost shocks on inflation in wages and domestic prices could take longer to unwind than they had to emerge, and noted that the risks to their inflation forecasts were skewed significant to the upside. In fact, the BoE highlighted that these risks were incorporated in the mean inflation forecasts, where mean inflation was projected to reach 1.9% two-years ahead and 2.0% by the second quarter 2026, meaningfully higher than the model forecasts and pretty much on target.

In June, the BoE reaccelerated its hiking cycle and raised policy rate by 50bps, taking Bank Rate to 5%. Immediately prior to the meeting, the market had priced roughly a one-in-three chance of a 50bps hike, so the size of the interest rate move was slightly hawkish relative to market expectations. However, the vote was split 7-2, with external MPC members Dhingra and Tenreyro preferring to maintain an unchanged Bank Rate. The forward guidance was left unchanged from before, which neither pre-committed the MPC to further tightening nor specified any particular increment. In fact, the emphasis in the minutes that the “scale of recent upside surprises” meant that a 50bp move was warranted “at this particular meeting” seemed, at face

value, to point to a one-off outsized rate hike, barring further upside surprises of a similar scale. A pure read of the guidance would therefore point to a return to 25bp at the next meeting, although the action of delivering a surprised 50bp hike demonstrated that the BoE does not necessarily need to communicate a more forceful move in order to tighten faster. Effectively, the BoE now leaves all options open for future MPC meetings, which is consistent with the current data-dependent and risk management nature of policy decisions, and probably means higher uncertainty around future decisions.

The mortgage bomb

The higher level of interest rates is causing concern for UK mortgage borrowers. The UK's mortgage market is exposed to the effects of higher rates given the prevalence of short-term fixed rate mortgage, with a majority of the mortgage loan rates fixed on a 1 to 5 years term. The 2-year mortgage interest rate is now above 6%, and the 5-year mortgage rate is also not far from that level, compared with an average rate of 2.34% available to borrowers in December 2021. About 800,000 households are set to refinance their mortgage loans over the second half of this year, with a further 1,600,000 households due next year. The substantial jump in mortgage rates will translate into a meaningful squeeze on disposable income from these households and therefore weigh on spending. The magnitude of the impact from rising mortgage payment will depend on individual household's situations. Roughly one-third of UK households have a mortgage, but about 40% of UK households own their homes outright. Renters may also face higher rent as landlords try to pass on higher mortgage financing costs.

For UK banks, rising mortgage rates will likely lead to higher arrears and impairments on the mortgage loan books. However, improved underwriting standards and healthy capital positions pointed to manageable risks for banks. The Financial Conduct Authority (FCA) reported 0.86% of total residential mortgage balances in arrears for the first quarter of 2023, which is significantly lower than the 3.32% rate in 2009. The average homeowner who re-mortgaged over the last twelve months had around a 50% loan-to-value (LTV) ratio – for homeowners with considerable equity in their homes, there will be options to more easily manage their repayments. Lenders have around 10% “owner-occupier mortgages” on their books with LTV higher than 75%, compared to around 25% before the 2008 financial crisis. Overall, the banking sector is more resilient to a downturn in the housing market than before.

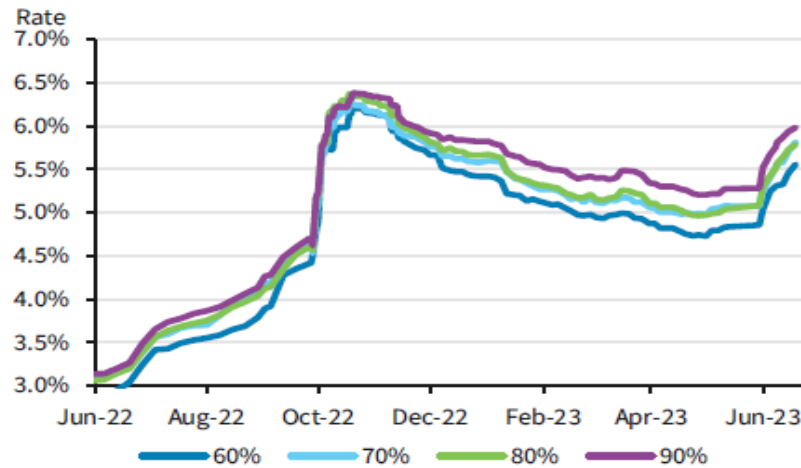
In light of the increasing pressures on mortgage borrowers, particularly those who are about to refinance their mortgage debt in the near future, the Chancellor met with the UK's largest mortgage lenders in late June to agree on new commitments to support borrowers through the upcoming difficult period. New measures include:

- Anyone worried about their mortgage repayment can contact their lender, without any impact on their credit scores
- Borrowers who are up to date on their payments and can switch out of their existing deals without another affordability check
- Lenders will have to provide well-timed information to help customer
- Lenders will offer tailored support for anyone struggling including, extending the mortgage term to reduce monthly payments, offer to switch to interest-only payments, and other options like a temporary payment deferral or part interest-part repayment plans
- 12-month delay in repossessions

While these measures will provide some relief for people who are worried about the impact of higher mortgage rates on their family finances, and those who are facing the risk of losing their homes, there was no announcement of support for renters, who are facing the prospects of their landlords raising rents or selling the renter-occupied properties due to rising mortgage costs.

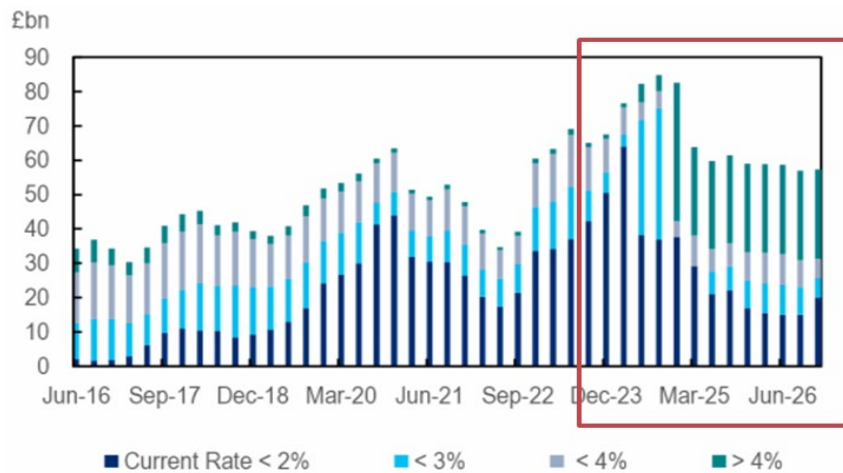
It was also noteworthy that despite political and economic pressures on the government to come to the rescue, the UK government was firm to rule out direct public support, and highlighted in their announcement that “the only way we can keep costs and mortgage rates down is to tackle the root causes of inflation”. We see this as a positive sign that the UK government recognizes the need for fiscal discipline, and is committed to supporting the BoE's work to return inflation to target.

UK Mortgage Rates Increasing Steadily since Early June (by LTV ratio)



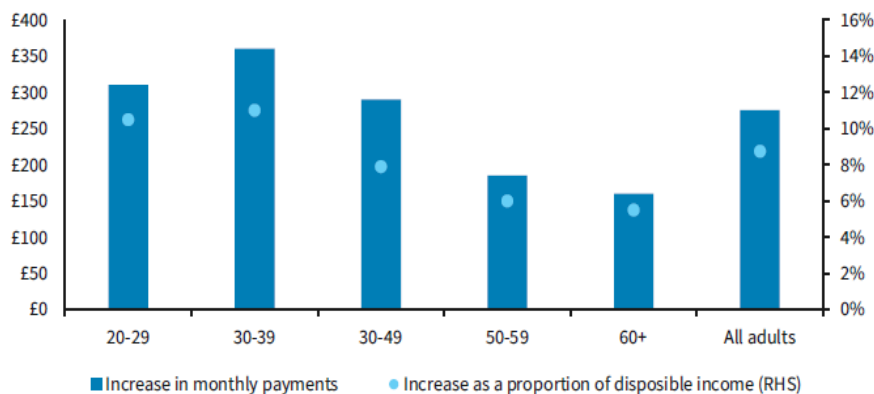
Source: Barclays Research, moneyfactscompare; June 2023

UK Household Fixed Rate Mortgage Re-financing Schedule (£ billion per quarter)



Source: Citi Research; June 2023

Average Increase in Mortgage Payments in Mortgage-Holding Households (by age group)



Source: Barclays Research, IFS; June 2023

Fiscal development

The UK's public sector net debt reached £2.567 trillion in May this year, surpassing 100% of GDP for the first time since 1961. While the rise in debt-to-GDP ratio was not a surprise, the bad news was that public borrowing has been running a little ahead of the government forecasts. Higher and stickier inflation, alongside large increases in public sector pay deals, contributed to higher-than-expected public spending. Higher-debt interest cost also added to the public debt, and the situation will likely worsen given the rise in interest rates over the past couple of months.

While some Conservative party backbenchers have been pushing for tax cuts before the next general election, which must be held by January 2025, Prime Minister Sunak and Chancellor Hunt have been holding the line of fiscal responsibility, and reiterated the PM's commitment to halve inflation this year.

Despite the political pressure to provide help for mortgage borrowers, Sunak and Chancellor Hunt were firm to push back against calls for direct public support, and emphasized their support of the BoE's effort in returning inflation to target. In addition, in light of the ongoing public sector workers strikes, Sunak suggested that the government might overrule public sector wage increases recommended by independent pay review bodies out of concern for a wage-price spiral. More importantly, the government has noted the fundamental reality that there is no fiscal space for sweeping tax cuts.

These actions suggested that the government recognizes the need for fiscal discipline, as well as the danger that any further fiscal loosening at this stage would probably be met with an adverse market reaction.

UK index-linked Gilts second quarter performance review

The main developments in the UK over the course of the second quarter were the consecutive upside surprises in inflation prints, as well as the reacceleration in wage growth. The Gilt market repriced significantly, reflecting the rising need for the BoE to hike policy rates more aggressively to arrest the unfavorable dynamics between wage growth and inflation. As a result, the pricing for expected terminal policy rate moved higher by 160bps from around 4.6% in early April to 6.2% by the end of June. Not only has there been a very large increase in rate hike expectations, but perhaps more importantly, there was an extension of the hawkish time frame. This led to a dramatic reshaping of the expected Bank Rate path, with the peak in rates shifting from August 2023 through to the end of 2023 and into first quarter 2024. Furthermore, the reshaping of the forward curve has also changed the narrative over the next year or so, flipping the end of 2024 outlook from net cuts to net hikes.

Having previously signaled the intention to pause, the scale of upside surprises in wage and inflation data and the associated rising risks of a de-anchoring of inflation expectations resulted in a reacceleration of rate hikes. The BoE delivered a 50bp rate hike in June, a hawkish surprise against the one-third odds of such decision being priced by the market prior to the meeting, perhaps to demonstrate its wish to get on top of the inflation narrative. This is consistent with the market response of a flatter curve, where the slope between conventional 2-year and 10-year Gilts flattened by 93bps into inverted territory, from around

+4bps to -90bps over the quarter. Responses in breakeven inflation (BEI) rates were relatively muted overall, albeit with high volatility over short timeframes amid thin trading liquidity. Five-year cash BEI repriced roughly 40bps higher over the quarter to land at 4.08% at the end of June to reflect the higher path of near-term inflation, while the 10-year BEI rate only rose 10bps to reach 3.87%. The BEI rate in the 30-year sector closed at 3.47% in June, largely unchanged from the levels at the end of March.

The portfolio was positioned with a UK 5s10s real yield curve steepener, reflecting our view that term premium in the UK should rise, given the backdrop of large fiscal borrowing, BoE active Gilt sales, as well as the rising risks of inflation not easing as quickly as desired. We also established a long position in UK duration, as 10-year/ 10-year forward real yields pushed higher towards 1% at the end of April, motivated by our view that lower trend growth in a supply constrained economy and a potential return of liability-driven demand for linkers should help anchor the level of long-dated real yields. While we have factored in the outlook of sticky inflation into our considerations, we did not anticipate the resurgence in wage growth and meaningful upward surprise in core inflation. These positions therefore suffered and detracted from second quarter performance.

Outlook and current exposures

While economic growth turned out to be more resilient than expected, growth has been at best flatlining in recent months. Manufacturing PMI suggested that the sector remained mired in contractionary territory, growth momentum in services PMI has waned, and construction PMI has dipped back to sub-50 level in its June release. The pass-through of higher interest rates to the mortgage market has been very slow. The transmission mechanism is also blunt by higher outright home ownership (without a mortgage) and a rise in fixed rate mortgages compared with previous cycles. For households re-fixing their mortgage loans this year and next, the increased payment will weigh heavily on consumption, and business investments will also be at risk given tighter credit conditions.

The acceleration in wage growth has been broad-based across the public and private sector as well as individual industries, and its recent acceleration cannot be entirely attributed to the rise in the national minimum wage. The ongoing public sector workers' strikes suggested that upward momentum in public sector wage growth is not yet over, as spot inflation is a key determinant of pay settlements. As for the private sector, the KPMG-ECs survey for May pointed to continued moderation in wage growth. Pay growth for new employment, which tends to lead realized wage growth by around six months, fell to its lowest level since Q2 2021, and is now within its 2019 range. Taken together, these suggest wage growth will likely remain strong in the near future, but will likely moderate through the second half of the year as the labour market continues to loosen. There are indeed some early signs of an easing labour market. Labour inactivity continues to fall, as workers re-enter the job market. Vacancies have fallen, and redundancy rate have ticked up, albeit slowly.

On the fiscal side, with debt-to-GDP ratio surpassing 100%, and debt interest costs rising, the UK government recognizes the need for fiscal discipline, as well as the danger that any further fiscal loosening at this stage would probably be met with an adverse market reaction. The worsened outlook for the public finances suggest that the long-awaited loosening in fiscal policy before the next general election is unlikely to materialize in the near future.

Despite the recent stubbornness in inflation, headline CPI is still expected to fall sharply, mainly due to energy base effects. Food inflation has likely peaked, as there are increasing signs of competition, and the downward trend in PPI and manufacturing price surveys suggest that good prices would probably decline. However, core services inflation is unlikely to recede quickly, as upward wage adjustments in wage settlements will take time to manifest in the data. While there is still a chance for Sunak to achieve his goal of halving inflation by the end of the year, the BoE's work in bringing inflation back to target is not yet over.

In terms of monetary policy, we see two further rate hikes, a 50bp move in August followed by another 25bp hike in September, taking Bank Rates to 5.75%. Given the recent developments in inflation and the labour market, more decisive hikes are not only warranted, but urgently required from a risk management perspective in keeping the wage-price spiral from worsening further. Further ahead, with growth stagnating, headline inflation moderating, some loosening in the labour market and little scope for fiscal easing, we believe the debate between risks of over-tightening and under-tightening could swing back into balance, allowing the BoE to under-deliver versus the 6.2% terminal rate priced by the market at the end of June.

As such, we maintain an overweight position in long-dated real yields, reflecting our view of lower trend growth in a supply constrained economy. We also expect liability-driven demand to return and support real yields given strong pension solvency status. We are currently neutral in UK breakeven inflation. On the one hand, limited linker issuance relative to conventional

Gilts, persistent inflationary pressures and a potential return of liability-driven demand should be supportive to BEI. On the other hand, the BoE's desire to get on top of the inflation narrative, the government's commitment to fiscal responsibility, and lackluster growth outlook would likely contain BEI. In yield curve, we maintained our modest 5s10s real yield curve steepener, as we see current pricing for the BoE terminal rate as excessive. In addition, we took advantage of supply concession ahead of the UKTI 2045 syndication in July to increase our overweight in the 20-year sector against the 10-year sector and the ultra-long end.

DISCLOSURES

Opinions expressed are current as of the date appearing in this document only. This document is confidential and may not be reproduced or redistributed, in any form and by any means, without BNPPAM USA's prior written consent.

"BNP PARIBAS ASSET MANAGEMENT" is the global brand name of the BNP Paribas group's asset management services. The individual asset management entities within BNP PARIBAS ASSET MANAGEMENT if specified herein, are specified for information only and do not necessarily carry on business in your jurisdiction. For further information, please contact your local BNP Paribas asset manager.

This document is provided for your reference on a private and confidential basis to discuss an existing or potential advisory relationship. You are invited to meet with BNPPAM USA to discuss any of the information provided herein or otherwise, including any and all terms (including fees) that may apply to the relationship.

This document is not to be construed as an offer to buy or sell any financial instrument. It is presented only to provide information on investment strategies and current financial market trends. The analyses and opinions contained in this document are those of BNPPAM USA, and are based upon information obtained by BNP PARIBAS ASSET MANAGEMENT USA, Inc. from sources which are believed to be reliable. BNPPAM USA provides no assurance as to the completeness or accuracy of the information contained in this document. Statements concerning financial market trends are based on current market conditions, which will fluctuate. Investment strategies which utilize foreign exchange may entail increased risk due to political and economic uncertainties. The views expressed in this document may change at any time. Information is provided as of the date indicated and BNPPAM USA assumes no duty to update such information. There is no guarantee, either express or implied, that these investment strategies work under all market conditions. Readers should independently evaluate the information presented and reliance upon such information is at their sole discretion.

BNP PARIBAS ASSET MANAGEMENT USA, Inc. is registered with the US Securities and Exchange Commission as an investment adviser under the Investment Advisers Act of 1940, as amended.